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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,540	12/08/2003	Ciprian Agapi	BOC9-2003-0099 (1082-10U)	1500
46322 7590 02/19/2008 CAREY, RODRIGUEZ, GREENBERG & PAUL, LLP STEVEN M. GREENBERG 950 PENINSULA CORPORATE CIRCLE SUITE 3020 BOCA RATON, FL 33487			EXAMINER WOZNIAK, JAMES S	
			ART UNIT 2626	PAPER NUMBER
			MAIL DATE 02/19/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/730,540	Applicant(s) AGAPI ET AL.	
	Examiner James S. Wozniak	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. In response to the office action from 8/30/2007, the applicant has submitted an amendment, filed 11/30/2007, arguing to traverse the art rejection based on the limitation regarding extracting audio segments from a speech application program (*Amendment, Page 13*). Applicant's arguments have been fully considered, however the previous rejection is maintained due to the reasons listed below in the response to arguments.
2. In response to the amended claims, the examiner has withdrawn the previous objections directed to minor informalities.
3. In response to the terminal disclaimer filed on 11/30/2007, the examiner has withdrawn the previous obviousness-type double patenting rejection.
4. In response to the amendment of claim 11, indicating that the computer readable storage medium is a non-volatile medium, the examiner notes that one aspect of the previous 35 U.S.C. 101 rejection has been overcome. As the body of the claim is still defined in terms of the program ("the computer program performing a method comprising"- i.e., no link in the preamble between the computer executing the program and the method performed to enable its functionality), however, the previous 35 U.S.C. 101 rejection is maintained. It is recommended

that the claim be amended to recite: --which when executed by a computer performs a method that identifies... the method comprising:-- instead of "the computer program performing a method comprising-- in order to overcome this rejection (alternatively, the language recited on page 7 of the prior OA would also be acceptable).

Response to Arguments

5. Applicant's arguments have been fully considered but they are not persuasive for the following reasons:

With respect to the independent claims, the applicant argues that Busayapongchai et al (*U.S. PG Publication: 2004/0254792*) fail to teach "extracting the audio segments from the speech application program" because Busayapongchai is concerned with only extracting text strings, while the applicant's invention deals with extracting audio segments ("*text strings are not audio segments*") (*Amendment, Page 13*).

In response, the examiner first notes that the "audio segments" as claimed refer to "planned audio segments". These planned audio segments contain "audio text *to be recorded* and associated file names". Audio segments are extracted from a speech application *program*, which is a code *script* in VoiceXML (*specification, Paragraph 0021*). Thus, as recited in the claims and even in the specification the "audio segments" that are to be extracted refer to script code and not "audio segments" as would be traditionally thought of in the art, as referring to audio waveforms or the like. Also, the claims recite that the "audio segments" are "planned" and "to be recorded", which is a further indication that no audio data is present in the speech

application program. The portion of the background referenced by the applicant (*Paragraph 0002 in the specification and paragraph 0004 in the PG Publication*), would further support that an uncreated (i.e., unrecorded) audio segment comprises a naming convention and content and not a segment of audio data because such information is needed to *create* audio segments.

With the above in mind, the examiner will now describe the teachings of Busayapongchai as they read on the "audio segments" as they are defined in the claims. In Busayapongchai, audio segments referencing text to be recorded and name descriptors used to populate a file name automatically are extracted from a VoiceXML script (*Paragraphs 0028-0031 and 0039*). These segments are then provided to a recording manages that passes extracted text strings to a voice talent for manual recording (*Paragraphs 0031 and 0039*). Thus, since the extracted "audio segments" in Busayapongchai contain text to be recorded and name descriptors used to populate a file name, Busayapongchai anticipates the claim limitation "extracting the audio segments from the speech application program".

The art rejection of the dependent claims is traversed for reasons similar to the independent claims (*Amendment, Pages 13-14*). In regards to such arguments, see the above response directed to the independent claims.

Claim Objections

6. **Claims 12-20** are objected to because of the following informalities:

In claims 12-20, "The computer readable storage medium" should be changed to "The non-volatile computer readable storage medium-- in order to provide proper antecedent basis for this limitation in the claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. **Claims 11-20** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 11 is drawn to a "program" *per se* as recited in the preamble (i.e., the body of the claim, as defined by the preamble, is directed to the program rather than the method performed when the program on the computer readable medium is executed- "the computer program performing a method comprising") and as such is directed to non-statutory subject matter. See MPEP § 2106.IV.B.1.a. Data structures not claimed as embodied in computer readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In

contrast, a claimed computer readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

In order to overcome the first aspect of this rejection, it is recommended to change the preamble to –A computer readable storage medium storing a computer program which, when executed by a computer, identifies and optimizes planned audio segments in a speech application program by performing a method comprising:--.

Dependent claims 12-20 fail to overcome the 35 U.S.C. 101 rejection of independent claim 11, and thus, are also directed to non-statutory subject matter by virtue of their dependency.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. **Claims 1, 10-11, and 20-21** are rejected under 35 U.S.C. 102(e) as being anticipated by Busayapongchai et al (*U.S. PG Publication: 2004/0254792*).

With respect to **Claim 1**, Busayapongchai discloses:

Identifying planned audio segments in the speech application program, the audio segments containing audio text to be recorded and associated file names (*identifying audio text in a VoiceXML script, referencing recordable text and associated file naming descriptors, Paragraphs 0028-0030*);

Extracting the audio segments from the speech application program (*parser extracting text strings from VoiceXML scripts, Paragraph 0031*); and

Processing the extracted audio segments to create an audio text recordation plan (*recording manager that passes extracted text strings to a voice talent for manual recording, Paragraphs 0031 and 0039*).

With respect to **Claim 10**, Busayapongchai discloses the VoiceXML script as applied to Claim 1.

With respect to **Claim 11**, Busayapongchai discloses the method, as applied to claim 1, implemented as a program stored on a computer readable medium (*Paragraphs 0023-0026*).

Claim 20 contains subject matter similar to Claim 10, and thus, is rejected under similar rationale.

With respect to **Claim 21**, Busayapongchai discloses the method, as applied to claim 1, implemented in a computer's CPU (*Paragraphs 0023-0026*).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. **Claims 2-5, 12-15, and 22-25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Busayapongchai et al in view of Ladd et al (*U.S. Patent: 6,269,336*).

With respect to **Claim 2**, Busayapongchai discloses the method for extracting and producing audio text for recording as applied to Claim 1. Busayapongchai does not specifically suggest identifying text associated with a pause, creating a silence file associated with the identified pause, and modifying an audio file referenced by the text containing the pause information. Ladd, however, recites the ability to process a "break" element in VoiceXML script to divide audio text scripts, insert a predefined length of audio silence, and divide audio prompts (*Col. 29, Line 58- Col. 30, Line 26*).

Busayapongchai and Ladd are analogous art because they are from a similar field of endeavor in VoiceXML processing systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Busayapongchai with

the break element taught by Ladd in order to configure and add natural speaking characteristics to a VoiceXML page (*Ladd, Col. 16, Lines 11-20*).

With respect to **Claim 3**, Ladd further discloses:

Determining if the text indicating a programmed pause occurs within the audio text of the extracted audio segment (*identifying a break element, Col. 29, Line 58- Col. 30, Line 26*); and

Separating the audio text of the extracted audio segments into discrete audio text segments if the programmed pause occurs within the audio text of the extracted audio segment (*break element is inserted between two segments of audio text, Col. 29, Line 58- Col. 30, Line 26*).

With respect to **Claim 4**, Busayapongchai does not specifically identify and create elements for variable text, however, Ladd further discloses:

Identifying text indicating a variable in the extracted audio segments (*"option" element in VoiceXML that defines multiple variable prompts, Col. 27, Line 53- Col. 29, Line 35*);

Determining if the variable has an associated text file containing variable values (*"option" element contains multiple segments of audio text, Col. 29, Lines 5-35*);

Creating a variable audio segment for each said variable value, if the variable has an associated text file (*audio prompt that is provided for each variable instance in the "option" element, Col. 29, Lines 5-35*); and

Modifying the audio segment containing the text indicating the variable (*"option" element is divided using separate script tags for each variable, Col. 29, Lines 5-35*).

With respect to **Claim 5**, Ladd further discloses:

Determining if the variable occurs within audio text of the audio segment (*identifying an "option" element, Col. 27, Line 53- Col. 29, Line 53*); and

Separating the audio text of the extracted audio segments into discrete audio text segments if the variable occurs within the audio text of the extracted audio segment (*separating opening prompts and variable elements, which are identified using tags, within an "option" element, Col. 29, Lines 5-35*).

Claims 12-15 contain subject matter respectively similar to Claims 2-5, and thus, are rejected under similar rationale.

Claims 22-25 contain subject matter respectively similar to Claims 2-5, and thus, are rejected under similar rationale.

13. **Claims 6-8, 16-18, and 26-28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Busayapongchai et al in view of Wen et al (*U.S. Patent: 6,341,959*).

With respect to **Claim 6**, Busayapongchai discloses the method for extracting and producing audio text for recording as applied to Claim 1. Busayapongchai also recites VoiceXML script comprising multiple sentences (*Paragraphs 0002-0003; and 0029*).

Busayapongchai does not specifically suggest modifying multiple text segments to obtain only a single text segment if extracted audio segments contain more than one sentence, however, Wen recites the ability to detect and delete a repeated sentence, thus obtaining a single instance of that sentence (*Col. 3, Lines 64-65*).

Busayapongchai and Wen are analogous art because they are from a similar field of endeavor in language user interfaces. Thus, it would have been obvious to a person of ordinary

skill in the art, at the time of invention, to modify the teachings of Busayapongchai with the repeated sentence detection means taught by Wen in order to save storage space in the VoiceXML system taught by Busayapongchai (*Wen, Col. 3, Lines 64-65*).

With respect to **Claim 7**, Busayapongchai further discloses:

Processing the extracted audio segments further includes sorting the extracted audio segments (*ordering text sequences for recording, Paragraph 0032*).

With respect to **Claim 8**, Busayapongchai discloses the identification of audio text as applied to claim 1, while Wen recites the ability to detect and delete repeated sentences, as applied to Claim 6.

Claims 16-18 contain subject matter respectively similar to Claims 6-8, and thus, are rejected under similar rationale.

Claims 26-28 contain subject matter respectively similar to Claims 6-8, and thus, are rejected under similar rationale.

14. **Claims 9, 19, and 29** are rejected under 35 U.S.C. 103(a) as being unpatentable over Busayapongchai et al in view of Ladd et al, and further in view of Heinze et al (*U.S. Patent: 6,915,254*).

With respect to **Claim 9**, Busayapongchai in view of Ladd discloses the method for extracting and producing audio text having “option” elements for recording as applied to Claim 4. Ladd further recites that the variables within the option elements are nouns or open class words (*Col. 29, Lines 5-35*). Busayapongchai in view of Ladd does not specifically teach performing text parsing by dividing text at a closed class word, wherein a first audio text ends

with a non-closed class word preceding the variable. Such a parsing principle, however, is well known in text processing, as is evidenced by Heinze. Heinze discloses breaking text at closed class words (*i.e., articles, prepositions, pronouns, etc.*) (*Col. 11, Lines 45-47; and Col. 19, Line 64- Col. 20, Line 12*). Thus, in the case of Heinze, the word preceding the closed-class word and ending the first segment would be non-closed class and would precede the variable, which are nouns (*i.e., open class words*) in the case of Ladd.

Busayapongchai, Ladd, and Heinze are analogous art because they are from a similar field of endeavor in text file processing systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Busayapongchai in view of Ladd with the parsing scheme taught by Heinze in order to provide natural language structure understanding in a script (*Heinze, Col. 4, Lines 33-37*).

Claim 19 contains subject matter similar to Claim 9, and thus, is rejected under similar rationale.

Claim 29 contains subject matter similar to Claim 9, and thus, is rejected under similar rationale.

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO


MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Wozniak whose telephone number is (571) 272-7632. The examiner can normally be reached on M-Th, 7:30-5:00, F, 7:30-4, Off. Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached at (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James S. Wozniak
2/14/2008


PATRICK N. EDOUARD
SUPERVISORY PATENT EXAMINER